Owner's Manual

Model No.
1644980US

- **Assembly**
- **Operation**
- **Adjustments**
- **Parts**
- **Warranty**

CAUTION:

You must read and understand this owner's manual before operating unit.
Keep this manual for future reference.
Serial number

Write the serial number in the space above for reference. Serial number can be found at the front bottom section of the Treadmill.

Manufacture's Limited Warranty

Dyaco Canada Inc. warrants all its home use treadmills parts for a period of time listed below, from the date of retail sale, as determined by a sales receipt or in the absence of a sales receipt. Dyaco Canada Inc.'s responsibilities include providing new or remanufactured parts, at Dyaco Canada Inc.'s option, and technical support to our independent dealers and servicing organizations. In the absence of a dealer or service organization, these warranties will be administered by Dyaco Canada Inc. directly to a consumer. The warranty period applies to the following components:

Limited Warranty	
Frame	**Lifetime**
Motor	**10 Years**
All Other Components	**2 Years**
Labour	**1 Year**

This warranty is not transferable and is extended only to the original owner.
This warranty shall not apply to treadmills which are (1) used for commercial or other income producing purpose, or (2) subject to misuse, neglect, accident or unauthorized repairs and alterations

This warranty provided herein is in lieu of all other express warranties. Any implied warranties, including any implied warranties of merchantability or fitness for particular purpose are limited in duration to the first 12 months from the date of purchase. All other obligations or liabilities, including liability for consequential damages are hereby excluded

Repair Parts and Service

All of the parts for the Xterra treadmill, shown in figure can be ordered from: Dyaco Canada Inc. 6050 Don Murie Street, Niagara Falls, Ontario, L2G 0B3. When ordering parts, the parts will be sent and billed at the current prices. Prices may be subject to change without notice. Check or money order must accompany all orders. Standard hardware items are available at your local hardware store.

To ensure prompt and correct handling of any errors, or to answer any questions, please call our Toll Free number, 1-888-707-1880, or email us at customerservice@dyaco.ca. or visit us at: www.dyaco.ca. Office hours are from 8:30 A.M. to 5:00 P.M. Monday to Friday Eastern Standard time.

Always include the following information when ordering parts:
*Model number
*Name of each part
*Part number of each part

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IMPORTANT SAFETY INFORMATION
THIS UNIT IS INTENDED FOR HOUSEHOLD USE ONLY
READ ALL INSTRUCTIONS BEFORE USING THIS TREADMILL

CAUTION: Before starting any exercise program, it is recommended that you consult your physician.

WARNING: Connect this unit to a properly grounded outlet only.

DANGER: To reduce the risk of electric shock, always unplug the treadmill from the electrical outlet immediately after using and before cleaning.

WARNING

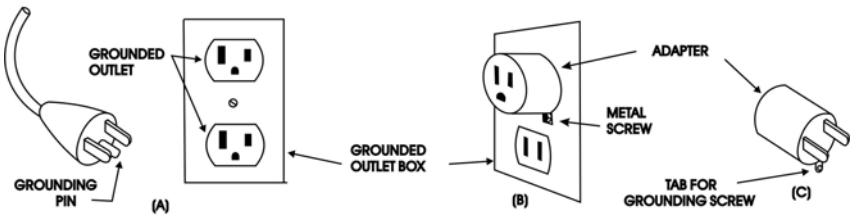
To reduce the risk of burns, fire, electric shock, or injury to persons:

1. Use 120 volt a.c. household current on a dedicated circuit.

Grounding Instructions

This product must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances. See diagram below for grounding methods.

Figure 1.
Grounding methods



AA 200

2. It is the responsibility of the owner to ensure that all users of this treadmill are adequately informed of all warnings and precautions.
3. The use of an extension cord with this product is not recommended. If an extension cord is needed, use a short (less than 10 feet) heavy gauge (16 gauge or better) extension cord with a three prong (grounded) plug and receptacle.
4. Never leave the treadmill unattended when plugged in. Remove the safety key and unplug the unit from the outlet when not in use and before removing or replacing parts.
5. Never operate the treadmill if it has a damaged cord or plug, if it is not working properly, if it has been dropped, damaged, or exposed to water. Never move the treadmill belt while the power is turned off.
6. Do not pull the treadmill by the power supply cord or use cord as a handle. Keep cord away from heated surfaces and open flames.
7. Fitness equipment must always be installed and used on a flat surface. Do not use outdoors or near water. Do not place the unit on a loose rug or uneven surface. It is recommended to use an equipment mat to prevent the unit from moving while it is being used, which could possibly scratch or damage the surface of your floor. It is recommended to have a minimum of 3 metres safe clearance on all sides of the treadmill while in use.
8. Keep the treadmill indoors, away from moisture and dust. Do not put the treadmill in a garage, covered patio or near water.
9. Do not operate the treadmill where aerosol products are used or where oxygen is being administered.
10. Read, understand, and test the emergency stop procedure before using the treadmill. Do not insert any objects into any openings.
11. Inspect and properly tighten all parts of the treadmill regularly.
12. Keep children and pets away from this equipment at all times while exercising.
13. Handicapped individuals should have medical approval and close supervision when using this treadmill.

14. Do not place hands or feet under the treadmill. Always keep hands and legs off of the treadmill when others are using it.
15. Never turn on treadmill while standing on treadbelt. Always hold the handrails while using the treadmill. Always return the treadmill to the slowest speed to provide for safe dismount and low speed restart.
16. To disconnect, turn all controls to the off position, then remove plug from outlet.
17. Do not attempt to raise, lower or move the treadmill until it is properly assembled. See assembly on page 8 and to fold and move the treadmill on page 10. Care must be taken when lifting or moving the equipment, so as not to injure your back. Always use proper lifting techniques. You must use any attachments that are not recommended by the manufacturer.
18. Use the treadmill only for its intended use as described in this manual. Do not use any attachments that are not recommended by the manufacturer.
19. User weight should not exceed 375lbs (170 kg).
20. Never allow more than one person on the treadmill at once.
21. Warm up 5 to 10 minutes before each workout and cool down 5 to 10 minutes afterward. This allows your heart rate to gradually increase and decrease and will help prevent straining muscles.
22. Never hold your breath while exercising. Breathing should remain at a normal rate in conjunction with the level of exercise being performed. If dizziness, nausea, chest pains, or any other abnormal symptoms are experienced while using this equipment, STOP the workout at once. CONSULT A PHYSICIAN IMMEDIATELY.
23. Start your program slowly and very gradually increase your speed and distance.
24. Always wear suitable clothing and footwear while exercising. Do not wear loose fitting clothing that could become entangled with the moving parts of your treadmill. Do not walk or jog barefoot, in stocking feet or loose fitting shoes or slippers.
25. This treadmill is intended for in-home use only. Do not use the treadmill in any commercial, rental or institutional setting.

WARNING: Before beginning any exercise program consult your physician. This is especially important for individuals over the age of 35 or persons with preexisting health problems. Read all instructions before using any fitness equipment. We assume no responsibility from personal injury or property damage sustained by or through the use of this product.

SAVE THESE INSTRUCTIONS

Important Electrical Information

WARNING!

- **NEVER** use a ground fault circuit interrupt (GFCI) wall outlet with this treadmill. Route the power cord away from any moving part of the treadmill including the elevation mechanism and transport wheels.
- **NEVER** remove any cover without first disconnecting AC power.
- If voltage varies by ten percent (10%) or more, the performance of your treadmill may be affected. **Such conditions are not covered under your warranty**. If you suspect the voltage is low, contact your local power company or a licensed electrician for proper testing. See Diagnosis Guide, page 23.
- **NEVER** expose this treadmill to rain or moisture. This product is **NOT** designed for use outdoors, near a pool or spa, or in any other high humidity environment.

This product must be grounded. If the treadmill should malfunction or breakdown, grounding provides a path of least resistance for electric current, reducing the risk of electric shock. This product is equipped with a cord having an equipment-grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

DANGER - Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product if it will not fit the outlet; have a proper outlet installed by a qualified electrician.

- **NEVER** operate this treadmill without reading and completely understanding the results of any operational change you request from the computer.
- Understand that changes in speed and incline do not occur immediately. Set your desired work level on the computer console and release the adjustment key. The computer will obey the command gradually.
- **NEVER** use your treadmill during an electrical storm. Surges may occur in your household power supply that could damage treadmill components.
- Use caution while participating in other activities while walking on your treadmill, such as watching television, reading, etc. These distractions may cause you to lose balance or stray from walking in the center of the belt; which may result in serious injury.
- **NEVER** mount or dismount the treadmill while the belt is moving. Our treadmills start with at a very low speed and it is unnecessary to straddle the belt during start up. Simply standing on the belt during slow acceleration is proper after you have learned to operate the unit.
- Always hold on to a handrail or hand bar while making control changes (incline, speed, etc.).

Do not use excessive pressure on console control keys. They are precision set to function properly with little finger pressure. Pushing harder is not going to make the unit go faster or slower. If you feel the buttons are not functioning properly with normal pressure, contact your dealer.

Assembly Instructions

!!ATTENTION: IMPORTANT UNPACKING INSTRUCTIONS. PLEASE READ BEFORE UNPACKING YOUR FOLDING TREADMILL!!

Serious injury could occur if this folding treadmill is not unpacked properly.
There is a Velcro strap installed around the treadmill base that prevents the treadmill from unfolding accidentally during shipping. If this strap is not removed properly the treadmill could spring open unexpectedly and cause injury if someone is standing near the treadmill when the strap is removed.

To ensure your personal safety during removal of the shipping strap please make sure the treadmill is positioned flat on the ground, in the orientation it would be in if you were using the treadmill. Do not turn the treadmill up on its side while removing the shipping strap. This could cause the treadmill's folding mechanism to spring open. If the end of the Velcro strap (that you need to grab to remove it) happens to be under the treadmill deck, reach under the deck to grab it, but do not tilt the treadmill up to gain access to the strap end.

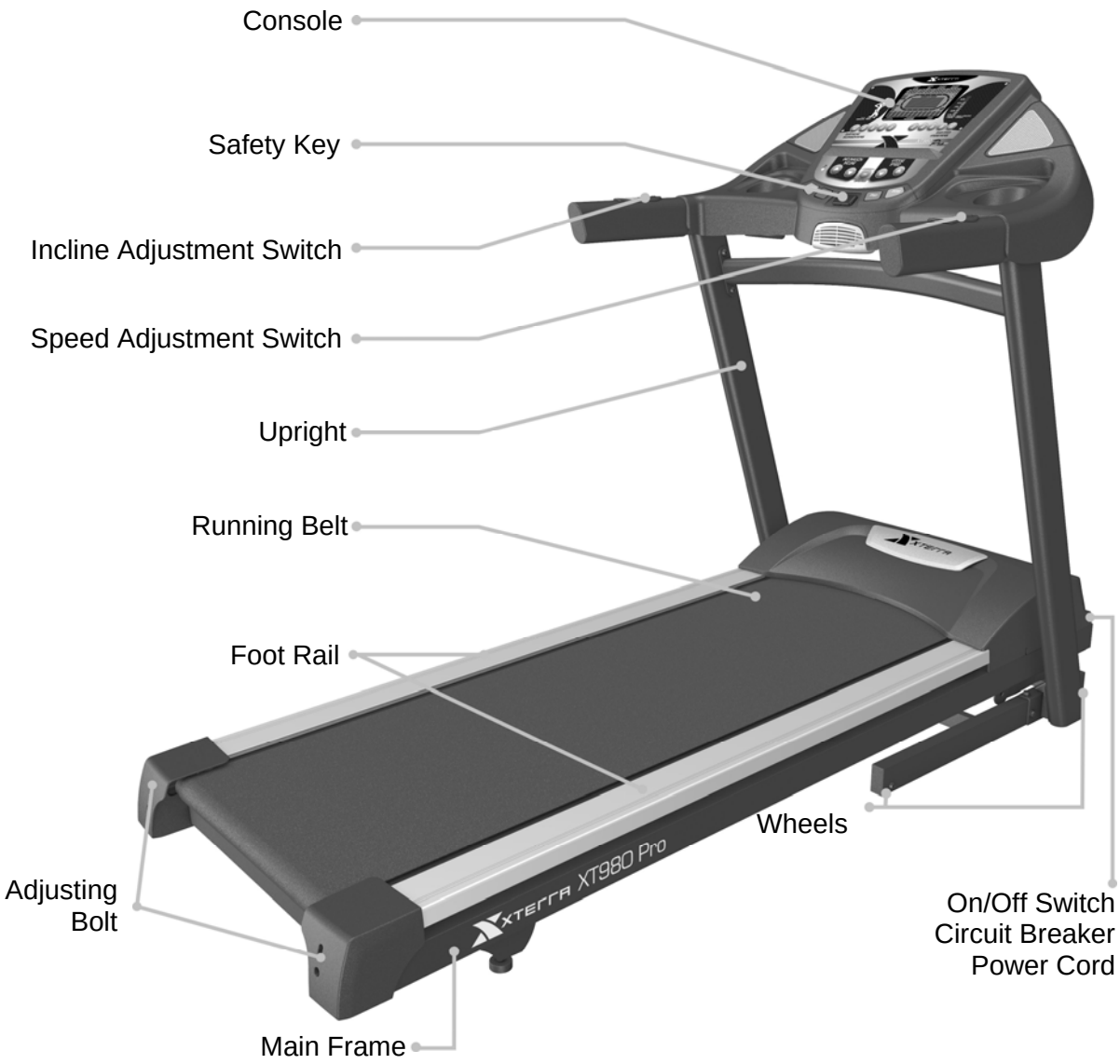
Unpack the treadmill and locate the hardware pack. The hardware pack is separated into five sections; one section containing tools and four sections labeled steps 1-4 which contain the hardware needed for assembly of each step. The assembly steps below are numbered one through four and correspond to the hardware in the numbered sections of the hardware pack. Remove only the hardware for the step you are currently assembling to avoid confusion and mix ups.

Before you begin.

Thank you for purchasing our product. Even though we go to great efforts to ensure the quality of each product we produce, occasional errors and /or omissions do occur. In any event should you find this product to have either a defective or a missing part please contact us for a replacement.

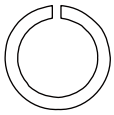
This product has been designed for home use only. Product liability and guarantee conditions will not be applicable to products being subjected to professional use or products being used in a gym center. This exercise equipment was designed and built for optimum safety. However, certain precautions apply whenever you operate a piece of exercise equipment. Be sure to read the entire manual before assembly and operation of this machine.

Before reading further, please familiarize yourself with the parts that are labeled in the drawing below.

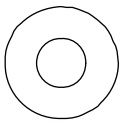


MAX. USER WEIGHT LIMIT 170 KGS (375 LBS)

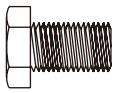
Hardware Packing



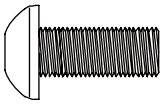
#80. Ø8 × 1.5m/m
Split Washer (4pcs)



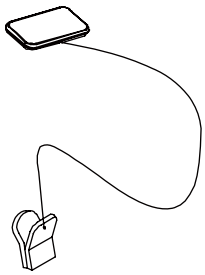
#100. Ø8 × Ø18 × 1.5m/m
Flat Washer(8pcs)



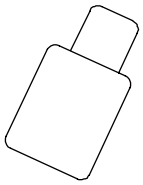
#99. 5/16" × UNC18 × 1/2"
Hex Head Bolt (8pcs)



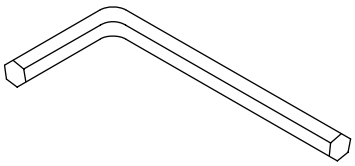
#125. 5/16" × UNC18 × 3/4"
Button Head Socket Bolt (8pcs)



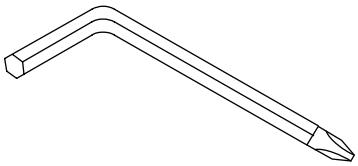
#44. Safety Key
(1pc)



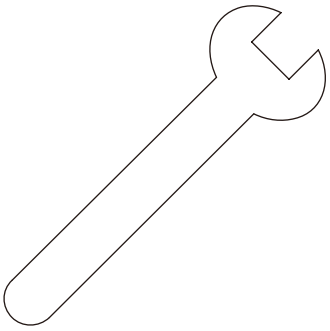
#104. Lubricant
(1pc)



#103. M6 (66 × 86)
L Allen Wrench (1pc)



#102. Combination M5 Allen Wrench
& Phillips Head Screw Driver (1pc)

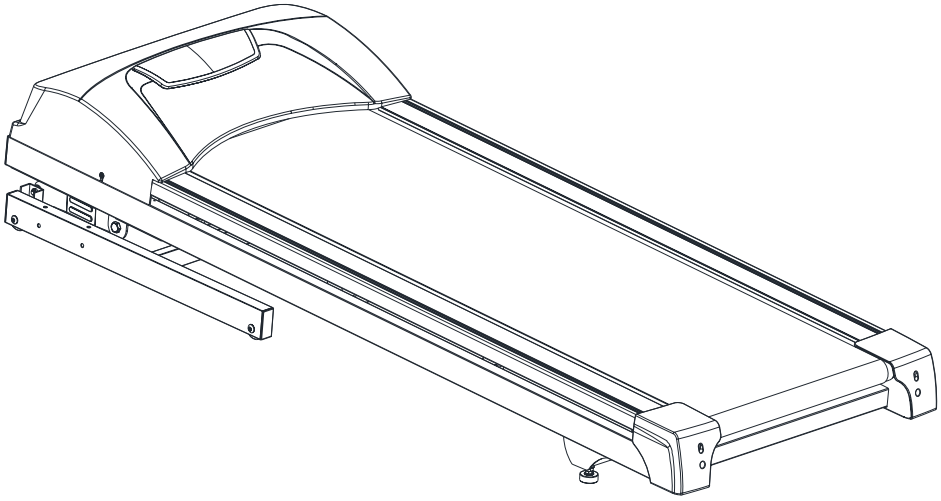


#90. 13L
Wrench (1pc)

Assembly Instructions

Step 1.

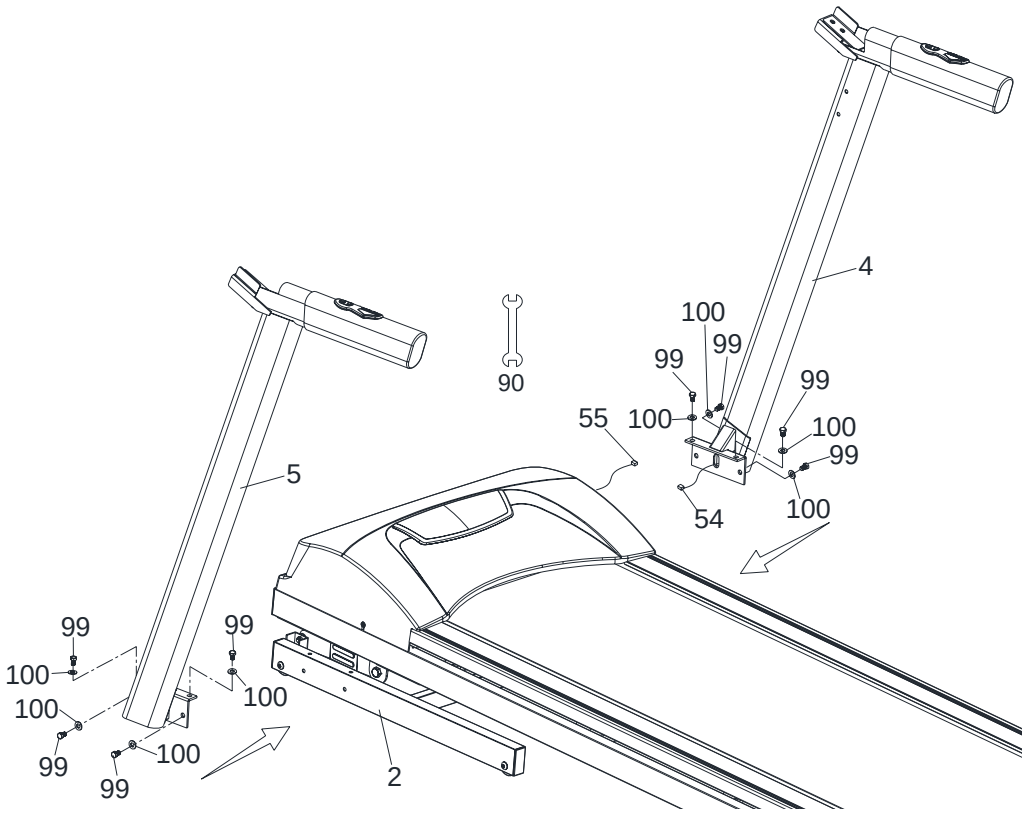
Remove the treadmill from the carton and lay it on a smooth level surface.



Step2.

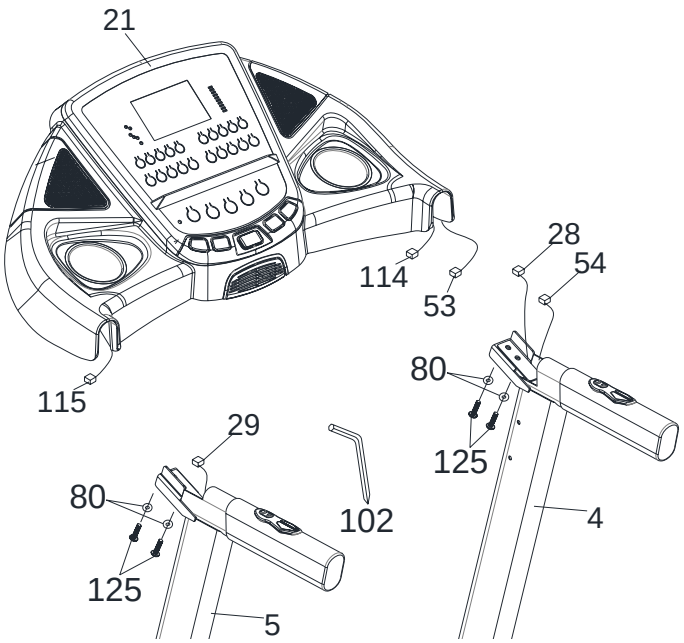
Connect the Computer Cable (Middle) (54) with the Computer Cable (Lower) (55) from the right upright. Insert the Right and Left Uprights (4) and (5) into the Frame Base (2) and use the 13m/m Wrench (90) to tighten 8 pcs of 5/16" × UNC18 × 1/2" Hex Head Bolts (99) and 8pcs of Ø8 × Ø18 × 1.5T Flat Washers (100).

Tip: Avoid pinching the Extension Wires



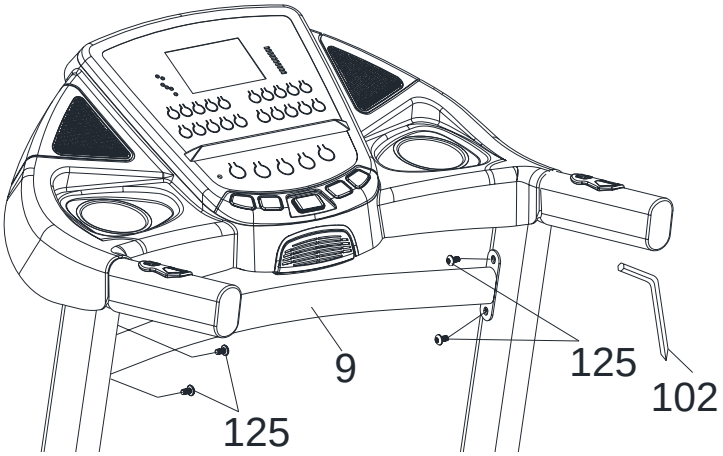
Step 3

1. Connect the Computer Cable (Middle) (54) to the Computer Cable (Upper) (53).
2. Connect the Speed Adjustment Switch W/Cable(Upper) (114) to the Speed/Hand Pulse Complex (28).
3. Connect the Incline Adjustment Switch W/Cable(Upper) (115) to the Incline/Hand Pulse Complex (29).
4. Insert the Console Assembly (21) into the right and left Uprights (4) and (5) and secure with 4 pcs of 5/16" × UNC18 × 3/4" Button Head Socket Bolts (125) with 4 pcs of Ø8 × 1.5T Split Washers (80) by using the Combination M5 Allen Wrench & Phillips Head Screw Driver (102).
   Tip: Avoid pinching the Extension Wires



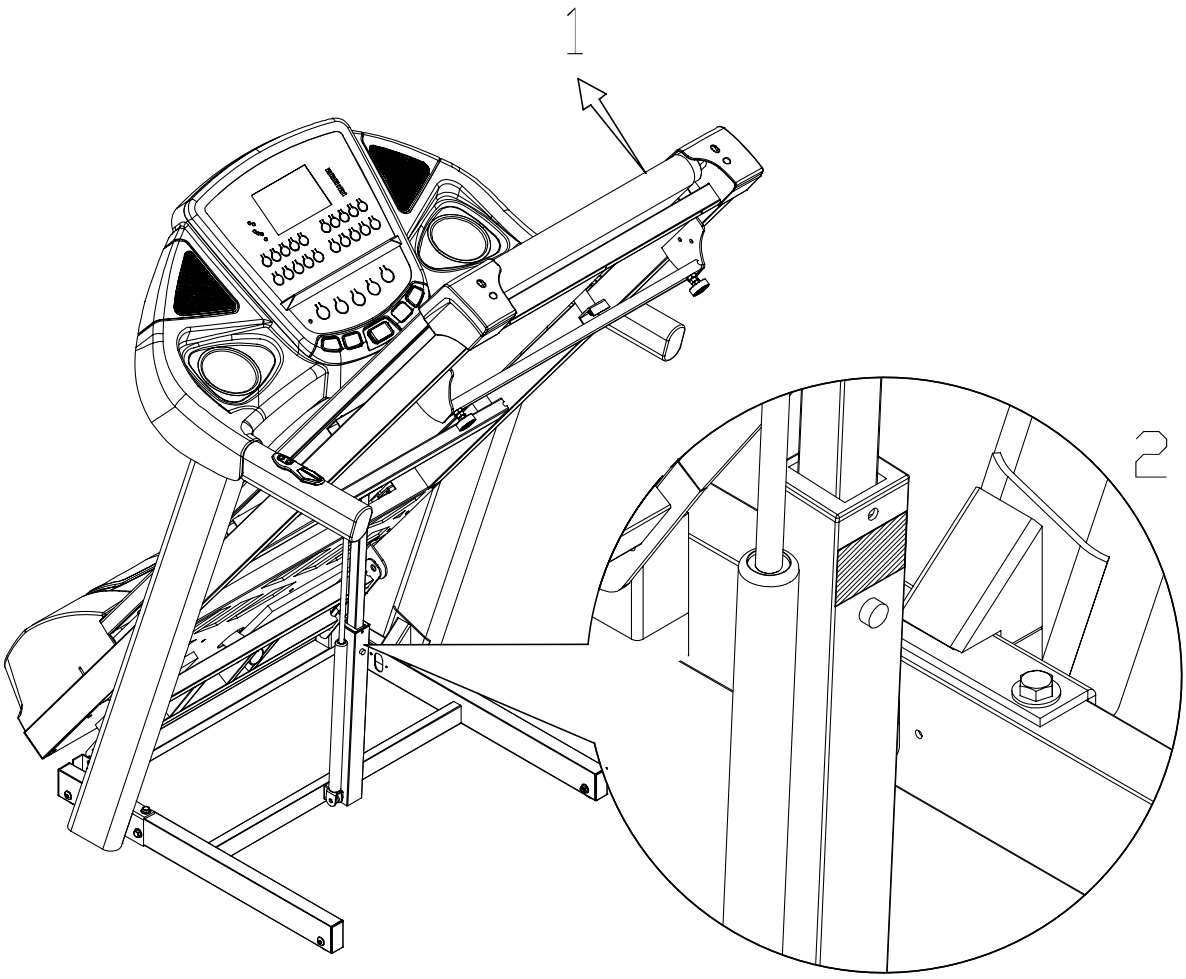
Step 4.

Install the Handrail Support (9) between the left and right Uprights (5) and (4) and use the Combination M5 Allen Wrench & Phillips Head Screw Driver (102) to tighten 4 pcs of 5/16" × UNC18 × 3/4" Button Head Socket Bolts (125).



Your unit is now fully assembled. Ensure all nuts and bolts are firmly tightened prior to use.

Folding Instructions



Do not attempt to move the unit unless it is in the folded and locked position. Be sure the power cord is secured to avoid possible damage. Use both handrails to maneuver the unit to the desired position.

■ TO FOLD THE TREADMILL
Lift the deck until the latch clicks in place.

■ TO UNFOLD THE TREADMILL
Press the tube with your foot at the yellow sticker
To release latch, see picture to the right.

Transportation

The treadmill is equipped with four transportation wheels. After folding simply roll the treadmill away.

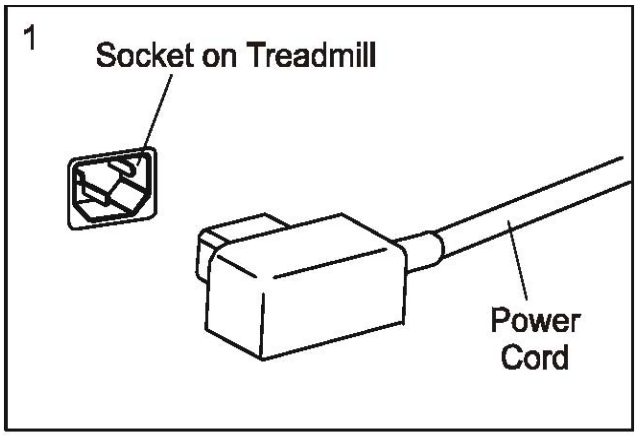
Treadmill Operation

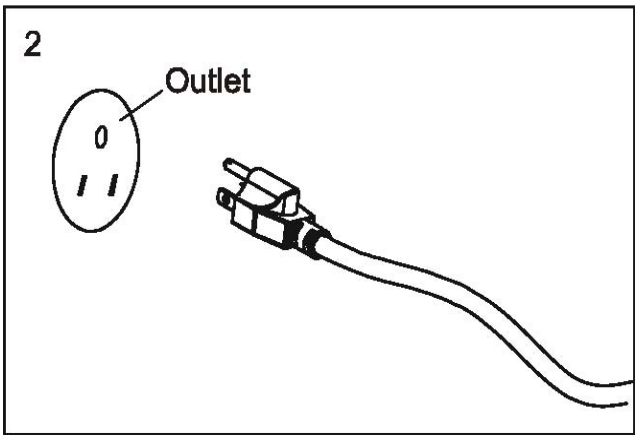
Your treadmill features a walking belt coated with a lubricant. IMPORTANT: Never apply silicone spray or other substances to the walking belt or walking board. Such substances will deteriorate the walking belt and cause excessive wear.

How to plug in the power cord.

GROUNDING INSTRUCTIONS.
This product must be grounded. No plug adapter should be used with this product.

WARNING:
Improper connection of the equipment grounding conductor can result in a
risk of an electric shock. Check with a qualified electrician if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product, if it will not fit the outlet; have a proper outlet installed by a qualified electrician. The use of an extension cord with this product is not recommended. If an extension cord is needed, use a short (less than 10 feet) heavy gauge (14 gauge or better) extension cord with a three prong (grounded) plug and receptacle. IMPORTANT: If the power cord is damaged, it must be replaced with a manufacturer recommended power cord.





1. Plug the indicated end of the power cord into the socket of the treadmill. See drawing below.
2. Plug the power cord into an appropriate outlet that is properly installed and gounded. See drawing below. Important: The treadmill is not compatible with GFCI-equipped outlets.

Note: Your power cord and outlet may appear different

Operation of your treadmill

GETTING STARTED:

CAUTION: Before operating the console, read the following precautions:
Do not stand on the walking belt when turning on the treadmill
Always wear the safety key. Pulling the safety key will stop tread-belt movement.
Adjust the speed in small increments to avoid sudden jumps in speed
To reduce the possibility of electric shock, keep the console dry. Avoid spilling liquids on the console and place only sealed water bottles in the water bottle holders.
Do not use excessive pressure on console control keys. They are precision set to function properly with little finger pressure. Pushing harder is not going to make the unit go faster or slower.
Understand that changes in speed and incline do not occur immediately. Set your desired speed on the computer console and release the adjustment key. The computer will obey the command gradually.

How to use the safety key

1. Place the magnet into position on the round metal portion of the console control head. Your treadmill will not start and operate without this. Removing the magnet also secures the treadmill from unauthorized use.

2. Fasten the plastic clip onto your clothing securely to assure good holding power. **Note:** The magnet has strong enough power to minimize accidental, unexpected stopping. The clip should be attached securely to make certain it does not come off. The treadmill will stop, depending on speed, with a one to two step coast anytime the magnet is pulled off the console. Use the red Stop / Pause switch in normal operation.

TO OPERATE TREADMILL

CAUTION: To avoid injury, hold onto the handrails while mounting and dismounting the treadmill. Hold onto the handrails and place feet on siderails before starting. Step onto the walking belt only a slowest speed. Always hold on to a handrail or hand bar while making control changes (incline, speed, etc.). Before operating the console make sure that the power cord is properly plugged in and the on / off button is on. Attach the magnet end of the safety key onto the monitor and attach the clip end of the safety key to your clothing (ie: waistband). If you should slip or fall while exercising the safety key will pull out of the console, shutting off the treadmill.

Getting started:
Power the treadmill on by plugging it into an appropriate wall outlet, then turn on the power switch located at the front of the treadmill below the motor hood.

WINDOW DISPLAY

Speed: Displays the current speed from starting at 0.5 mph to 12 mph.
（Display shows M means MPH）

Time: Displays your elapsed workout time in minutes up to 99:59.
Counts down from your preset target time to 00:00 during your workout.

Distance: Displays the distance traveled in miles up to 99.99 miles.

Calories: Displays the cumulative calories burned at any given time during your workout.
Note: This is a rough guide used for comparison of different exercise sessions, which cannot be used for medical purposes.

Pulse: Displays the user's current heart rate in beats per minutes during the workout. To display your heart rate, you must hold both handrails.
Note: This is a rough guide used for comparison of different exercise sessions, which cannot be used for medical purposes.

Incline: Displays the incline level during your workout from 0 to 12.

Program: Displays the program selected.

LAPS： Indicate number of turns of the athletic track. One turn is 0.4 km (1/4 mile) with the range of 0~99 turns, resets when the value is over 99.

Button Function

SPEED ▲(FAST)： Pressing this button increases the speed by 0.1 mph. Press and hold this button for 3 seconds to increase speed rapidly. Press this button during setting the program to adjust the value (to increase).

SPEED ▼(SLOW)：Pressing this button decreases the speed by 0.1 mph. Press and hold this button for 3 seconds to decrease speed rapidly. Press this button during setting the program to adjust the value (to decrease).

INCLINE ▲(UP)： Pressing this button increases the incline level by 0.5. Press and hold this button for 3 seconds to increase the incline level rapidly. Press this button during setting the program to adjust the value (to increase).

IINCLINE ▼(DOWN) ： Pressing this button decreases the incline level by0.5. Press and hold this button for 3 seconds to decrease the incline level rapidly. Press this button during setting the program to adjust the value (to decrease).

ENTER: for program setting: Press this button to set weight, age, time.

PROGRAM: Press to select desired training.

START: Press this key to start treadmill at 0.5 mph start speed.

STOP: Press key once during training mode and treadmill will enter pause mode, slowing down to a complete stop. Incline will also return to starting position while in pause mode. Press start key again to resume training, resuming all set values (speed and incline) prior to entering pause mode. Pressing STOP key twice shows summary image. Pressing three times returns to idle mode.

FAN : Press key to turn on fan.There are three revolving speed with the fan, slow, medium and fast.

QUICK SPEED & INCLINE BUTTONS

Speed shortcut key：2 – 4 – 6 – 8 -10 mph To set the speed rapidly.
Incline shortcut key：2 – 4 – 6 – 8 – 10 To set the incline rapidly

Programmable Features

The monitor offers one manual program, random programs user program and H.R.C. program.

Treadmill Operation

Quick-Start Operation:

STEP 1: Attach the Safety key to wake display up (if not already on).

STEP 2: Press the START button to begin belt movement after a three second count down. Use the FAST/SLOW keys to adjust the desired speed at any time during training. Using the UP/DOWN keys to adjust the Incline at any time during training.

STEP 3: Press the ENTER button to exchange display speed, grade, avr and pace.

STEP 4: To get a pulse reading, simply grasp both stainless steel pick-ups. When the ♥ Icon is flashing that means the console is receiving a pulse. It may take a few seconds for the display to reach the actual number.

STEP 5: While training, you can press STOP button to stop your workout or pull safety key away from its position to shut down the computer. If you want to resume your workout, you can press START button and all previous data will resume counting.

PROGRAMS

MANUAL

STEP 1： Choose weight, age or time after entering MANUAL mode.

STEP 2: Press START to begin the program.

STEP 3: During the program you can adjust the speed and incline by pressing “FAST/SLOW and “UP/DOWN” buttons, or use rapid keys to jump directly to a setting.

STEP 4: Press “STOP” button to stop your workout or pull safety key away from its position to shut down the computer. The Stop button will Pause the program the first time it is pressed. The second time will end the program.

RANDOM PROGRAM

STEP 1: After entering RANDOM mode, press enter to automatically generate a program pattern then press ENTER to enter the mode.

STEP 2: Continue to set for weight, age and time.

STEP 3: Press START button to begin your workout.

STEP 4: During the program you can adjust the SPEED and INCLINE by pressing “FAST/SLOW button and “UP/DOWN” button, or use rapid keys to jump directly to a setting.

STEP 5: Press “STOP” button to stop your workout or pull safety key away from its position to shut down the computer.

Note: You may change the speed and incline while you are exercising (same as the manual program) but the next segment of the program will resume to its original position

5 User Programs

STEP 1: Press program button to Select **User 1** to **User 5** programs then press **Enter**.

STEP 2: Set your user name. Follow the directions in the message window.

STEP 3: The Message center will now be blinking a bodyweight value. Enter your bodyweight and press **Enter**.

STEP 4: The Message center will now be blinking an **Age** value. Adjust the age and press enter.

STEP 5: The message center will now be blinking on time. Use the FAST/SLOW buttong to adjust the time up from 20 minutes (if desired). Press the **Enter** key. This is a must to continue even if time is not adjusted.

STEP 6: The first column (segment) will now be blinking. Using the + or - keys, adjust the speed level to your desired effort for the first segment then press enter. The second column will now be blinking. Repeat the above process until all 20 segments have been programmed. The first column will be blinking again. This is for the incline programming. Repeat the above process to program all 18 segments for incline.

STEP 7: Press the **Start** button to begin the workout and also save the program to memory or press **Stop** to go back one step to reprogram.

TARGET HRC1 HRC2

STEP 1: Press PROGRAM UP/DOWN buttons to select the HRC1 or HRC2 mode that you want and press enter.

HRC1 adjust the speed to keep the heart rate at the target value
HRC2 adjust the incline to keep the heart rate at the target value

STEP 2: Press FAST/SLOW (UP/DOWN) button to adjust the weight and press enter.

STEP 3: Press FAST/SLOW (UP/DOWN) buttons to adjust the age and press enter.

STEP 4: Press FAST/SLOW (UP/DOWN) to adjust target Heart Rate, then press ENTER button to proceed to the next step.

STEP 5: The pre-set value of time is 20:00, and the range is from 10:00 to 99:00. Press FAST/SLOW (UP/DOWN) buttons to modify.

STEP 6: Press START to execute your program, or press START button to start training directly,

STEP 7: Press “STOP” button to stop your workout or pull safety key away from its position to shut down the computer.

Note: When heart rate is lower than target, incline or speed will increase to increase level of workout raising heart rate. When heart rate reaches target, no changes will be made. When heart rate is higher than target, incline or speed will decrease to lower heart rate. If heart rate does not lower and incline is not able to lower any further, the machine will stop to protect user.

MUSCLE ACTIVATION FIGURE

There is an anatomical figure located at the top of the console. This figure will light all areas that are activated when using the treadmill. These will light up during any of the programs. You can control which muscles are activated by changing the incline and swinging your arms. The pre-set programs will determine which lower body muscles will be activated by automatically adjusting the incline. Generally the following guidelines hold true:

The upper body LED's will light any time your hands aren't in contact with the pulse grip sensors

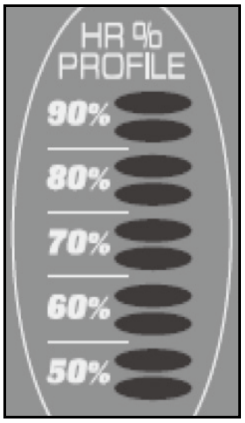
The lower body lights will activate in three degrees of engagement: Green represents minimal muscle involvement, Amber represents medium involvement, and Red represents full or heavy activation.

- 0-4.5% Elevation: even muscle distribution, all four muscle groups will be Amber
- 5-15% Elevation: Quads are Amber and Glutes, Hamstrings, and Calves are Red

HEART RATE BAR GRAPH

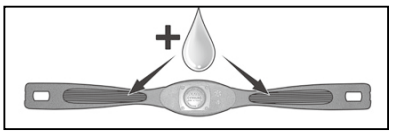
The console LCD screen will display your current heart rate anytime a pulse is detected. The Bar Graph, located to the right of the LCD screen, will show your current heart rate % in relation to your projected maximum heart rate, which is determined by your age that you entered during the programming phase of any of the 10 programs. The significance of the bar graph colors are as follows:

- 50-60% of maximum is Amber
- 65-80% of maximum is Amber and Green
- 85-90% or more is Amber, Green, and Red



USING HEART RATE TRANSMITTER (OPTIONAL)

Not included



How to wear your wireless chest strap transmitter:
1. Attach the transmitter to the elastic strap using the locking parts.
2. Adjust the strap as tightly as possible as long as the strap is not too tight remain comfortable.
3. Position the transmitter with the logo centered in the middle of your torso facing away from your chest (some people must position the transmitter slightly left of center). Attach the final end of the elastic strap by the round end and, using the locking parts, secure the transmitter and strap around your chest.
4. Position the transmitter directly below the pectoral muscles.
5. Sweat is the best conductor to measure very minute heart beat electrical signals.
However, plain water can also be used to pre-wet the electrodes (2 ribbed oval areas on the reverse side of the belt and both sides of the transmitter). It's also recommended that you wear the transmitter strap a few minutes before your work out. Some users, because of body chemistry, have a more difficult time in achieving a strong, steady signal at the beginning. After "warming up", this problem lessens. As noted, wearing clothing over the transmitter/strap doesn't affect performance.
6. Your workout must be within range - distance between transmitter/receiver – to achieve a strong steady signal. The length of range may vary somewhat but generally stay close enough to the console to maintain good, strong, reliable readings. Wearing the transmitter directly on bare skin assures you of proper operation. If you wish, you may wear the transmitter over a shirt. To do so, wet the areas of the shirt that the electrodes will rest upon.
Note: The transmitter is automatically activated when it detects activity from the user's heart. Additionally, it automatically deactivates when it does not receive any activity. Although the transmitter is water resistant, moisture can have the effect of creating false signals, so you should take precautions to completely dry the transmitter after use to prolong battery life (estimated transmitter battery life is 2500 hours). The replacement battery is Panasonic CR2032.

ERRATIC OPERATION
Caution! Do not use this treadmill for Heart Rate programs unless a steady, solid Actual Heart Rate value is being displayed. High, wild, random numbers being displayed indicate a problem.
Areas to look for interference which may cause erratic heart rate:
1. Treadmill not properly grounded - Proper grounding is a must!
2. Microwave ovens, TV's, small appliances, etc.
3. Fluorescent lights.
4. Some household security systems.
5. Perimeter fence for a pet.
6. Some people have problems with the transmitter picking up a signal from their skin. If you have problems try wearing the transmitter upside down. Normally the transmitter will be oriented so the logo is right side up.
7. The antenna that picks up your heart rate is very sensitive. If there is an outside noise source, t turning the whole machine 90 degrees may de-tune the interference.
8. Another Individual wearing a transmitter within 3' of your machine's console.
If you continue to experience problems contact Dyaco Canada Inc. 1-888-707-1880

HEART RATE PROGRAMS

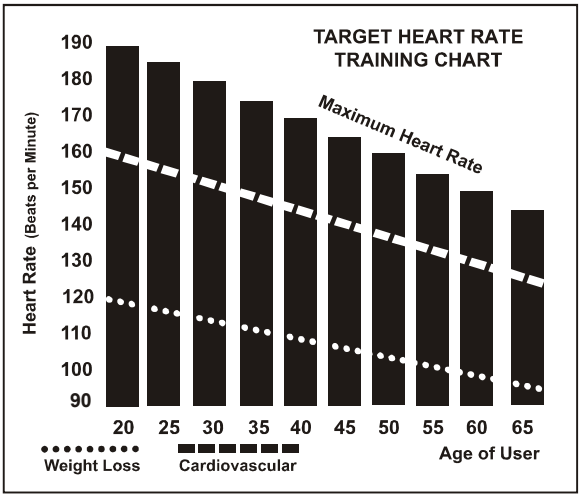
The old motto, “no pain, no gain”, is a myth that has been overpowered by the benefits of exercising comfortably. A great deal of this success has been promoted by the use of heart rate monitors. With the proper use of a heart rate monitor, many people find that their usual choice of exercise intensity was either too high or too low and exercise is much more enjoyable by maintaining their heart rate in the desired benefit range.

To determine the benefit range in which you wish to train, youmust first determine your Maximum Heart Rate. This can be accomplished by using the following formula: 220 minus your age. This will give you the Maximum Heart Rate (MHR) for someone of your age. To determine the effective heart rate range for specific goals you simply calculate a percentage of your MHR. Your Heart rate training zone is 50% to 90% of your maximum heart rate. 60% of your MHR is the zone that burns fat while 80% is for strengthening the cardio vascular system. This 60% to 80% is the zone to stay in for maximum benefit.

For someone who is 40 years old their target heart rate zone is calculated:

220 – 40 = 180 (maximum heart rate)
180 x .6 = 108 beats per minute
(60% of maximum)
180 X .8 = 144 beats per minute
(80% of maximum)

So for a 40 year old the training zone would be 108 to 144 beats per minute.



If you enter your age during programming the console will perform this calculation automatically. After calculating your MHR you can decide upon which goal you would like to pursue.

The two most popular reasons for, or goals, of exercise are cardiovascular fitness (training for the heart and lungs) and weight control. The black columns on the chart above represent the MHR for a person whose age is listed at the bottom of each column.The training heart rate, for either cardiovascular fitness or weight loss, is represented by two different lines that cut diagonally through the chart. A definition of the lines’ goal is in the bottom left-hand corner of the chart. If your goal is cardiovascular fitness or if it is weight loss, it can be achievedby training at 80% or 60% respectively, of your MHR on
a schedule approved by your physician. Consult your physician before participating in any exercise program.

RATE OF PERCEIVED EXERTION

Heart rate is important but listening to your body also has a lot of advantages. There are more variables involved in how hard you should workout than just heart rate. Your stress level, physical health, emotional health, temperature, humidity, the time of day, the last time you ate and what you ate, all contribute to the intensity at which you should workout. If you listen to your body, it will tell you all of these things.

The rate of perceived exertion (RPE), also know as the Borg scale, was developed by Swedish physiologist G.A.V. Borg. This scale rates exercise intensity from 6 to 20 depending upon how you feel or the perception of your effort.

The scale is as follows:

Rating Perception of Effort

6 Minimal
7 Very, very light
8 Very, very light +
9 Very light
10 Very light +
11 Fairly light
12 Comfortable
13 Somewhat hard
14 Somewhat hard +
15 Hard
16 Hard +
17 Very hard
18 Very hard +
19 Very, very hard
20 Maximal

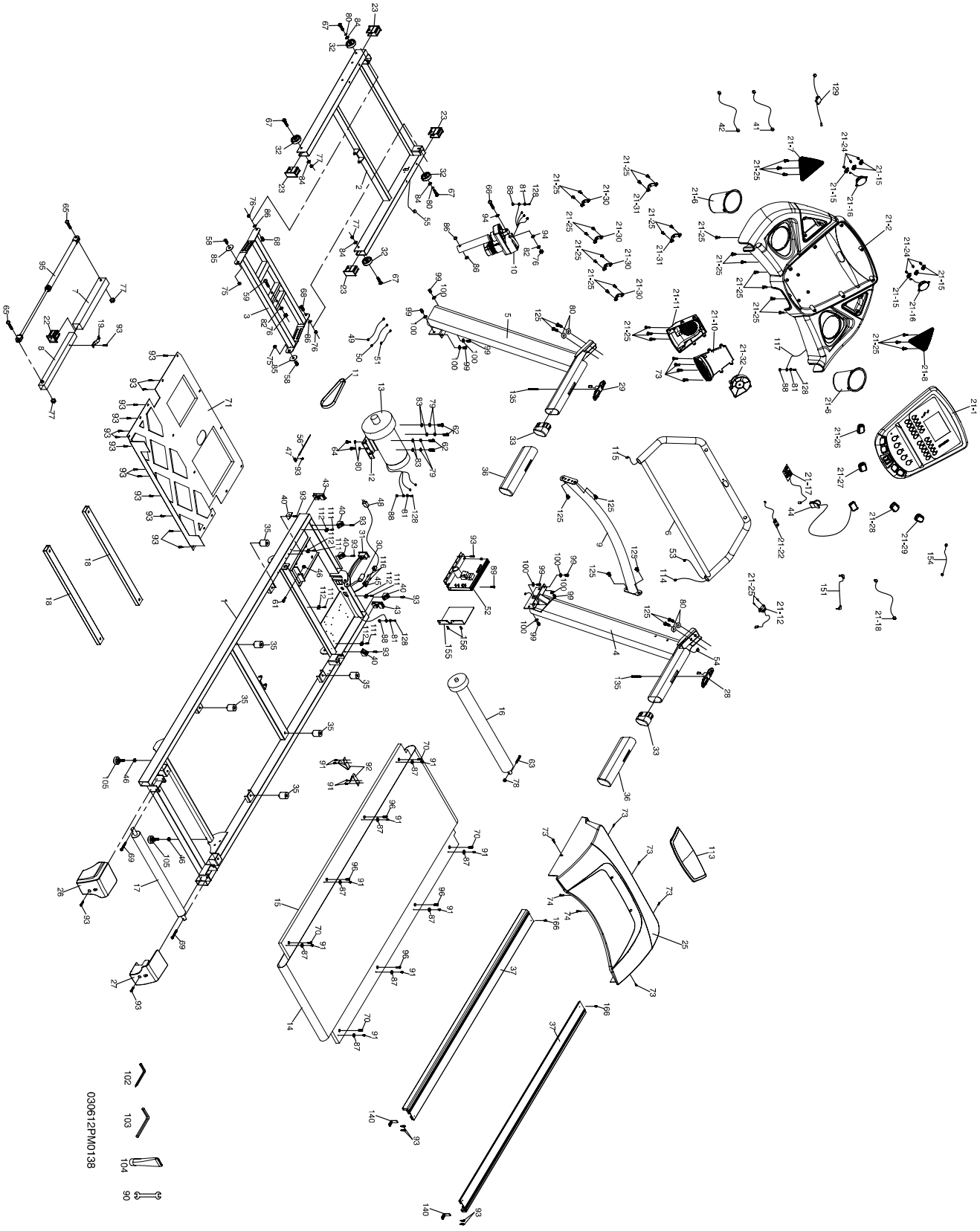
You can get an approximate heart rate level for each rating by simply adding a zero to each rating. For example a rating of 12 will result in an approximate heart rate of 120 beats per minute. Your RPE will vary depending up the factors discussed earlier. That is the major benefit of this type of training. If your body is strong and rested, you will feel strong and your pace will feel easier. When your body is in this condition, you are able to train harder and the RPE will support this. If you are feeling tired and sluggish, it is because your body needs a break. In this condition, your pace will feel harder. Again, this will show up in your RPE and you will train at the proper level for that day.

Parts List and Diagram

KEY NO.	PART NO.	DESCRIPTION	Q'TY
1	498001	Main Frame	1
2	498002	Frame Base	1
3	498003	Incline Bracket	1
4	498004	Right Upright	1
5	498005	Left Upright	1
6	498006	Console Support	1
7	498007	Outer Slide	1
8	498008	Inner Slide	1
9	498009	Handrail Support	1
10	498010	Incline Motor	1
11	498011	Drive Belt	1
12	498012	Motor Bracket	1
13	498013	Drive Motor	1
14	498014	Running Belt	1
15	498015	Running Deck	1
16	498016	Front Roller W/Pulley	1
17	498017	Rear Roller	1
18	498018	Deck Cross Brace	2
19	498019	Sliding Tube Spring	1
21	498021	Console Assembly	1
22	498022	Anti-Colliding Plug	1
23	498023	Metal Tube End Cap	4
25	498025	Motor Top Cover	1
26	498026	Adjustment Base (L)	1
27	498027	Adjustment Base (R)	1
28	498028	Speed/Hand Pulse Complex	1
29	498029	Incline/Hand Pulse Complex	1
30	498030	Breaker	1
31	498031	On/Off Switch	1
32	498032	Transportation Wheel	4
33	498033	Handgrip End Cap	2
35	498035	Cushion	6
36	498036	PVC Handgrip	2
37	498037	Aluminum Foot Rail	2
40	498040	Motor Cover Anchor(D)	5
41	498041	1000m/m_Connecting Cable (Upper)	1
42	498042	500m/m_Connecting Cable (Lower)	1
43	498043	30 × 60m/m_Square End Cap	2
44	498044	Square Safety Key	1
45	498045	Power Socket	1
46	498046	3/8" × UNC16 × 7T_Nut	3
47	498047	Sensor Rack	1
48	498048	Power Cord	1
49	498049	300m/m_Connecting Wire (White)	1
50	498050	300m/m_Connecting Wire (Black)	1
51	498051	100m/m_Connecting Wire (Black)	1
52	498052	Motor Controller	1
53	498053	1200m/m_Computer Cable (Upper)	1
54	498054	1250m/m_Computer Cable (Middle)	1
55	498055	1200m/m_Computer Cable (Lower)	1
56	498056	Sensor W/Cable	1
58	498058	1/2" × UNC12 × 1"_Hex Head Bolt	2
59	498059	3/8" × UNC16 × 3-1/2"_Hex Head Bolt	1
61	498061	3/8" × UNC16 × 1-1/2"_Hex Head Bolt	1
62	498062	3/8" × UNC16 × 3/4"_Hex Head Bolt	4
63	498063	M8 × P1.25 × 60L_Hex Head Bolt	1

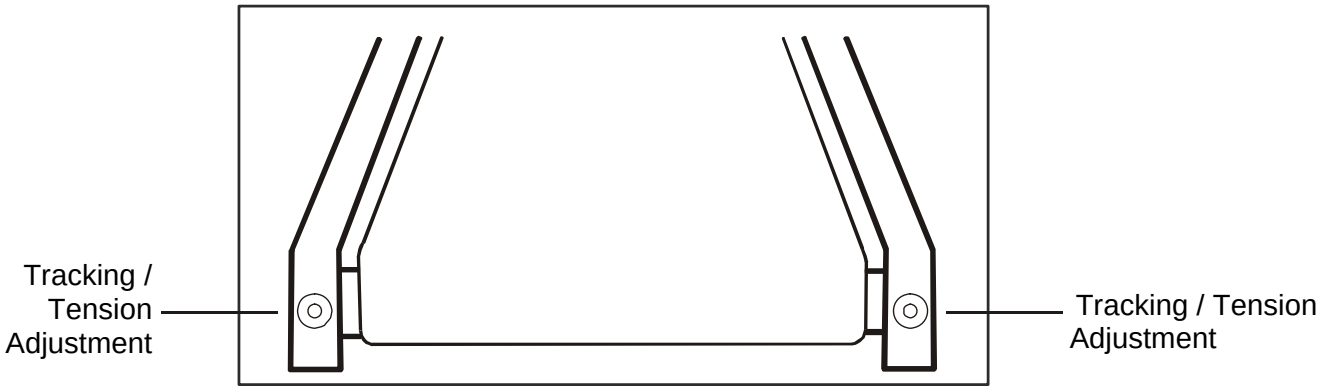
64	498064	M8 × P1.25 × 12L_Hex Head Bolt	2
65	498065	5/16" × UNC18 × 3"_Button Head Socket Bolt	2
66	498066	3/8" × UNC16 × 1-3/4"_Hex Head Bolt	1
67	498067	5/16" × UNC18 × 1-1/2"_Flat Head Socket Bolt	4
68	498068	3/8" × UNC16 × 3/4"_Button Head Socket Bolt	2
69	498069	M8 × P1.25 × 80L_Socket Head Cap Bolt	2
70	498070	M8 × P1.25 × 25L_Flat Head Countersink Bolt	4
71	498071	Motor Bottom Cover	1
73	498073	Ø5 × 16L_Tapping Screw	9
74	498074	Ø3.5 × 12L_Sheet Metal Screw	2
75	498075	1/2" × UNC12 × 8.0T_Nyloc Nut	2
76	498076	3/8" × UNC16 × 7.0T_Nyloc Nut	4
77	498077	5/16" × UNC18 × 7.0T_Nyloc Nut	4
78	498078	M8 × P1.25 × 7.0T_Nyloc Nut	1
79	498079	Ø10 × 2.0T_Split Washer	4
80	498080	Ø8 × 1.5T_Split Washer	8
81	498081	Ø5 × 1.5T_Split Washer	4
82	498082	Ø19 × Ø10 × 1.5T_Flat Washer	2
83	498083	Ø10 × Ø25 × 2.0T_Flat Washer	4
84	498084	Ø8 × Ø18 × 1.5T_Flat Washer	4
85	498085	Ø50 × Ø13 × 3T_Nylon Washer (B)	2
86	498086	Ø24 × Ø10 × 3T_Nylon Washer (A)	4
87	498087	Ø25 × Ø20 × Ø16 × Ø5 × 4.5H × 1.1T_Concave Washer	8
88	498088	Ø5 × 1.5T_Star Washer	4
89	498089	Ø5 × 19L_Tapping Screw	1
90	498090	13L_Wrensh	1
91	498091	Ø4 × 12L_Sheet Metal Screw	12
92	498092	Belt Guide	2
93	498093	Ø5 × 16L_Tapping Screw	28
94	498094	Nylon Washer	2
95	498095	Cylinder	1
96	498096	M8 × P1.25 × 50L_Flat Head Countersink Bolt	4
99	498099	5/16" × UNC18 × 1/2"_Hex Head Bolt	8
100	4980100	Ø8 × Ø18 × 1.5T_Flat Washer	8
102	4980102	Combination M5 Allen Wrench & Phillips Head Screw Driver	1
103	4980103	M6 (66 × 86)_L Allen Wrench	1
104	4980104	Lubricant	1
105	4980105	Adjustment Foot Pad	2
111	4980111	Ø3.5 × 16L_Tapping Screw	5
112	4980112	Wire Tie Mount	5
113	4980113	Top Motor Cover Plate	1
114	4980114	1000m/m_Speed Adjustment Switch W/Cable(Upper)	1
115	4980115	1000m/m_Incline Adjustment Switch W/Cable(Upper)	1
116	4980116	Ø3 × 10L_Sheet Metal Screw	2
117	4980117	400m/m_Console Ground Wire	1
125	4980125	5/16" × UNC18 × 3/4"_Button Head Socket Bolt	8
128	4980128	M5 × P0.8 × 10L_Phillips Head Screw	4
129	4980129	Receiver, HR	1
135	4980135	Ø3 × 75L_Sheet Metal Screw	2
140	4980140	Foot Rail Back Plate	2
151	4980151	400m/m_Audio Cable	1
154	4980154	1000m/m_Ground Wire	1
155	4980155	Controller Back Plate	1
156	4980156	Ø3 × 8L_Sheet Metal Screw	2
166	4980166	Ø4 × 25L_Sheet Metal Screw	2

Parts Diagram



General Maintenance

BELT ADJUSTMENTS:
Treadbelt Tension Adjustment - Belt tension is not critical for most users. It is very important for joggers and runners in order to provide a smooth, steady running surface. Adjustment must be made from the right side of the rear roller in order to adjust tension with the 6 mm Allen wrench provided in the parts package. The adjustment bolt is located at the end of the right side rail as noted in diagram below.



Note: *Adjustment is through small hole in end cap.*

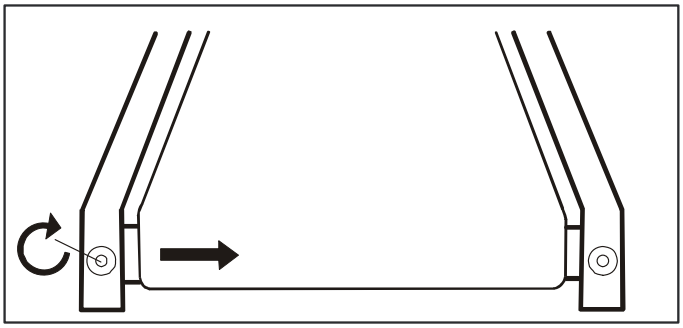
Tighten the rear roller only enough to prevent slippage at the front roller. Turn the treadbelt tension adjusting bolt in increments of 1/4 turn and inspect for proper tension.
When an adjustment is made to the belt tension, you must also make a tracking adjustment to compensate for the change in belt tension. This is accomplished by turning both the tension and tracking Allen bolts an equal amount. This adjustment should be made by turning both bolts clockwise by no more than a 1/4 turn at a time.
DO NOT OVERTIGHTEN – Over tightening will cause belt damage and premature bearing failure.

TREADBELT TRACKING ADJUSTMENT:

The performance of your treadmill is dependent on the frame running on a reasonably level surface. If the frame is not level, the front and back roller cannot run parallel, and constant belt adjustment may be necessary.
The treadmill is designed to keep the treadbelt reasonably centered while in use. It is normal for some belts to drift near one side while the belt is running with no one on it. After a few minutes of use, the treadbelt should have a tendency to center itself. If, during use, the belt continues to move toward one side, adjustments are necessary.

TO SET TREADBELT TRACKING:

A 6 mm Allen wrench is provided to adjust the rear roller. Make tracking adjustments from the left and the right side. Set belt speed at approximately 2 to 3 mph. A small adjustment can make a dramatic difference. Turn the bolt only a 1/4 turn and wait a few minutes for the belt to adjust itself. Continue to make 1/4 turns until the belt stabilizes in the center of the running deck. The belt may require periodic tracking adjustment depending on use and walking/running characteristics. Some users will affect tracking differently. Expect to make adjustments as required to center the treadbelt. Adjustments will become less of a maintenance concern as the belt is used. Proper belt tracking is an owner responsibility common with all treadmills.



ATTENTION: DAMAGE TO THE RUNNING BELT RESULTING FROM IMPROPER TRACKING / TENSION ADJUSTMENTS IS NOT COVERED UNDER THE WARRANTY.

BELT / DECK LUBRICATION:

Do not lubricate with other than Xterra approved lubricant. Your treadmill comes with one tube of lubricant and extra tubes can be ordered directly from Xterra. There are commercially available lube kits, but the only one currently approved by Xterra is Lube-N-Walk. These kits come with an application wand that makes applying the lubrication easier. Keeping the deck lubricated at the recommended intervals ensures the longest life possible for your treadmill. If the lubricant dries out, the friction between the belt and deck rises and places undue stress on the drive motor, drive belt and electronic motor control board, which could result in catastrophic failure of these expensive components. Failure to lubricate the deck at regular intervals may void the warranty.

The deck comes pre-lubricated and subsequent lubrication should be performed every 180 hours of use. To lubricate the deck with the tube of lubricant supplied it will be necessary to loosen the walking belt. Using the 6 mm allen wrench supplied, loosen the two rear roller adjustment bolts -- located in the rear end caps – enough to get your hand under the belt (5 –10 turns). Make sure to loosen both bolts the same amount of turns and also remember how many turns, because when finished you will need to tighten the bolts back to the point they were before.

Once the belt is loose, wipe the deck with a clean lint free cloth to remove any dirt. Apply the whole tube of lubricant onto the deck surface about 18 inches from the motor cover. Squeeze out the contents of the tube across the deck (parallel to the motor cover) in about a one-foot long line, like toothpaste on a toothbrush. The one-foot line should be in the middle of the deck at approximately equal distance from both side edges of the belt. You want the lubricant to be applied about the spot that your feet would hit the belt as you are walking. This should be about 18 inches from the motor cover, but you may want to walk on the treadmill before loosening the belt to note where your feet land on the belt. If you mostly run on the treadmill, the spot where your feet land may be different from walking. Once the lubricant is applied, tighten the rear roller bolts the same amount of turns as when you loosened them. Run the treadmill at about 6 mph without walking on it for about a minute or two to make sure the belt stays in the middle of the deck. If the belt tracks to one side then follow the belt tracking instructions to remedy. Now the deck is lubricated and you should walk, not run, on the treadmill immediately for at least 5 minutes to ensure the lubricant is evenly distributed. If you purchase a Lube-N-Walk kit, follow the instructions that come with it to apply the lubrication.

General Maintenance

WARNING: Always unplug your treadmill prior to cleaning in order to avoid electrical hazard or shock.

Belt and Bed - Your treadmill uses a very high-efficient low-friction bed. Performance is maximized when the bed is kept as clean as possible. Use a soft, damp cloth or paper towel to wipe the edge of the belt and the area between the belt edge and frame. Also reach as far as practical directly under the belt edge. This should be done once a month to extend belt and bed life. Use water only - no cleaners or abrasives. A mild soap and water solution along with a nylon scrub brush will clean the top of the textured belt. Allow to dry before using.

Belt Dust - This occurs during normal break-in or until the belt stabilizes. Wiping excess off with a damp cloth will minimize buildup.

General Cleaning - Dirt, dust, and pet hair can block air inlets and accumulate on the running belt. On a monthly basis, vacuum underneath your treadmill to prevent buildup. Once a year, you should remove the black motor hood and vacuum out dirt that may accumulate. UNPLUG POWER CORD BEFORE THIS TASK.

Cleaning metal surfaces may be accomplished by using a soft cotton or terry cloth rag with a light application of car wax. Do not use aerosol sprays or pump bottles as they may deposit wax upon the walking or computer surface. Under no circumstances are you to use ammonia, oils, silicones, or any other compounds on the rubberized walking surface. The use of such materials may cause serious injury to the body and/or deteriorate the performance of the walking surface. Only clean the rubberized walking surface with a damp cloth (water only). From time-to-time the computer surface may collect dust or finger prints. The use of harsh chemicals will destroy the protective coating and cause a static build up that will damage the components. This surface may be cleaned with specially prepared chemicals found in most computer supply stores especially made for anti-static surfaces. It is strongly recommended that you purchase such a cleaning compound.

TREADMILL LUBRICATION

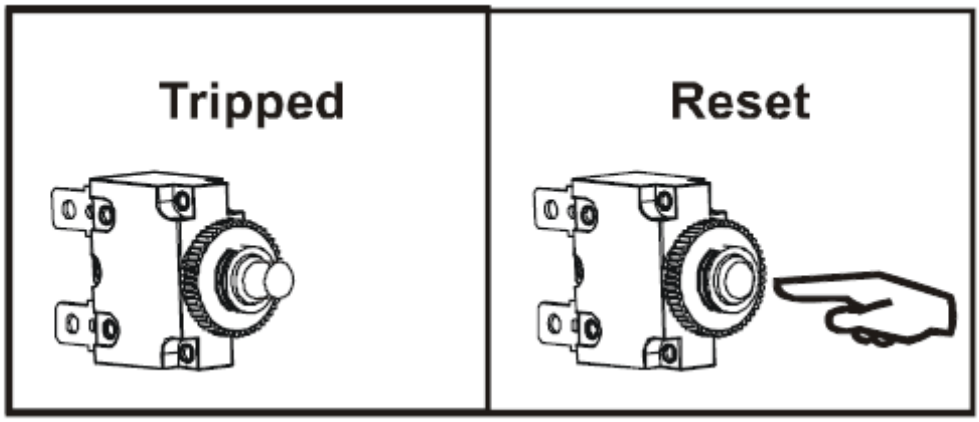
Your treadmill should require little maintenance other then periodically applying lubricant. Lubricating under the treadbelt will ensure superior performance and extend its life expectancy.

HOW TO CHECK IF THE TREADBOARD REQUIRES LUBRICATION

Lift one side of the treadbelt and feel the top surface of the treadboard
If the surface is (slick) to the touch, then no further lubrication is required
If the surface is dry to the touch, apply one packet of lubricant or half of the bottle of lubricant.

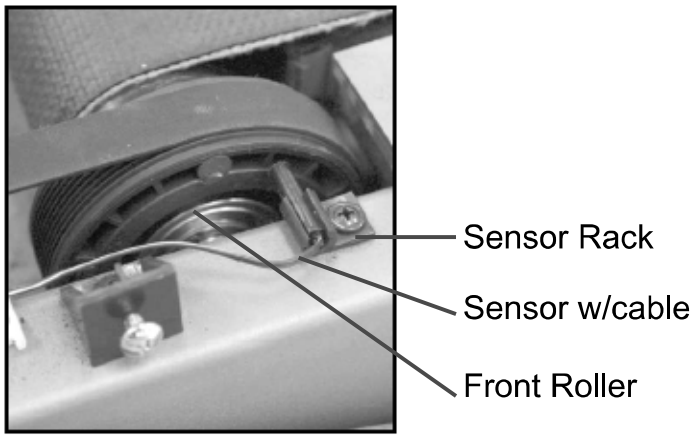
RESET SWITCH RESETTING

If your treadmill looses power or will not start, check the reset switch located on the front of the motor cover.
If the white tab of the reset switch is not showing then the reset switch has not been tripped.
If the white tab of the reset switch is showing, the reset switch has tripped.
To reset the reset switch:
Remove the safety clip on console.
Press white tab of the reset switch in until it snaps back into place.
If the reset switch continues to trip - see treadbelt adjustment and treadbelt lubrication



SPEED SENSOR ADJUSTMENT

If the monitor does not display speed or distance the speed sensor and magnet may be misaligned.
Note: Always unplug your treadmill prior to cleaning in order to avoid electrical hazard or shock.
Follow these steps to check and realign.
Remove the motor cover
Check the spacing and alignment between the magnet on the right side of the front roller and the speed sensor on the frame. The spacing must be 1/8”.
Loosen screw and slide speed sensor in or out of clamp.
Retighten screw and replace the motor cover.



Service Checklist – Diagnosis Guide

Before contacting your dealer for aid, please review the following information. It may save you both time and expense. This list includes common problems that may not be covered under the treadmill's warranty.

PROBLEM	SOLUTION/CAUSE
Display does not light.	1. Tether cord not in position. 2. Circuit breaker on front grill tripped. Push circuit breaker in until it locks. 3. Plug is disconnected. Make sure plug is firmly pushed into AC household wall outlet. 4. Household circuit breaker may be tripped. 5. Treadmill defect. Contact your dealer.
Tread-belt does not stay centered Treadmill belt hesitates when walk or run on.	The user may be walking while favoring or putting more weight on either the left or right foot. If this walking pattern is natural, track the belt slightly off-center to the side opposite from the belt movement. See **General Maintenance** section on **Treadbelt Tension**. Adjust as necessary.
Motor is not responsive after pressing start.	ontact the service department
Treadmill will only achieve approximately 18 kph (12 mph) but shows higher speed on display.	This indicates motor should be receiving power to operate. Low AC voltage to treadmill. Do not use an extension cord. If an extension cord is required it should be as short as possible and heavy duty 16 gauge minimum. Low household voltage. Contact an electrician or your dealer. A minimum of 120 volt AC current is required.
Tread-belt stops quickly/ suddenly when tether cord is pulled.	High belt/deck friction. See **General Maintenance** section on lubrication.
Treadmill trips on board 15 amp circuit.	High belt/deck friction. See **General Maintenance.**
Computer shuts off when console is touched (on a cold day) while walking/running.	Treadmill may not be grounded. Static electricity is "crashing" the computer. Refer to **Grounding Instructions.**
House circuit breaker trips, but not the treadmill circuit breaker.	Need to replace the house breaker with a "High In-rush current" type breaker.

Troubleshooting

I. Engineering Mode

Pull off the safety key and reinsert it after pressing “PROGRAM” button to enter engineering mode. Press “SET” button to choose setting wheel size, minimum speed, maximum speed or maximum incline level. Press SPEED+ or SPEED- to change the value. Press “START” when finish. The treadmill starts to calibrate and to exit when calibration is finished.

II. What to do when error occurs

1. **E0:** Safety key is not inserted
2. **E1:** Missing speed signal

   To clear: Check and make sure that speed signal connector is properly connected.
3. **E2:** Overloaded

   To clear: Resume power to the controller to clear the error message.
4. **E3:** Incline motor error

   To clear: Check and make sure that the incline motor cable is properly connected and resume power to clear error message.
5. **E4:** Motor error

   To clear: Check and make sure that motor cable is well connected and the power is stable. Resume power to clear error message.
6. **E5:** communication disconnection

   To clear: Check and make sure that cable connections are proper.
7. **E6:** Insufficient of power

   To clear: Check if voltage is too low or power transistor has been damaged. Replace power transistor if necessary.

TRAINING GUIDELINES

Exercise

Exercise is one of the most important factors in the overall health of an individual. Listed among its benefits are:

- Increased capacity for physical work (strength endurance)
- Increased cardiovascular (heart and arteries/veins) and respiratory efficiency
- Decreased risk of coronary heart disease
- Changes in body metabolism, e.g. losing weight
- Delaying the physiological effects of age
- Physiological effects, e.g. reduction in stress, increase in self-confidence, etc.

Basic Components of Physical Fitness

There are four all encompassing components of physical fitness and we need to briefly define each and clarify its role.

Strength is the capacity of a muscle to exert a force against resistance. Strength contributes to power and speed and is of great importance to a majority of sports people.

Muscular Endurance is the capacity to exert a force repeatedly over a period of time, e.g. it is the capacity of your legs to carry you 10 Km without stopping.

Flexibility is the range of motion about a joint. Improving flexibility involves the stretching of muscles and tendons to maintain or increase suppleness, and provides increased resistance to muscle injury or soreness.

Cardio-Respiratory Endurance is the most essential component of physical fitness. It is the efficient functioning of the heart and lungs

Aerobic Fitness

The largest amount of oxygen that you can use per minute during exercise is called your maximum oxygen uptake (MVo2). This is often referred to as your aerobic capacity.

The effort that you can exert over a prolonged period of time is limited by your ability to deliver oxygen to the working muscles. Regular vigorous exercise produces a training effect that can increase your aerobic capacity by as much as 20 to 30%. An increased MVO2 indicates an increased ability of the heart to pump blood, of the lungs to ventilate oxygen and of the muscles to take up oxygen.

Anaerobic Training

This means “without oxygen” and is the output of energy when the oxygen supply is insufficient to meet the body’s long term energy demands. (For example, 100 meter sprint).

The Training Threshold

This is the minimum level of exercise which is required to produce significant improvements in any physical fitness parameter.

Progression

As your become fitter, a higher intensity of exercise is required to create an overload and therefore provide continued improvement

Overload

This is where you exercise at a level above that which can be carried out comfortably. The intensity, duration and frequency of exercise should be above the training threshold and should be gradually increased as the body adapts to the increasing demands. As your fitness level improves, so the training threshold should be raised.

Working through your program and gradually increasing the overload factor is important.

Specificity

Different forms of exercise produce different results. The type of exercise that is carried out is specific both to the muscle groups being used and to the energy source involved.

There is little transfer of the effects of exercise, i.e. from strength training to cardiovascular fitness. That is why it is important to have an exercise program tailored to your specific needs.

Reversibility

If you stop exercising or do not do your program often enough, you will lose the benefits you have gained. Regular workouts are the key to success.

Warm Up

Every exercise program should start with a warm up where the body is prepared for the effort to come. It should be gentle and preferably use the muscles to be involved later.

Stretching should be included in both your warm up and cool down, and should be performed after 3-5 minutes of low intensity aerobic activity or callisthenic type exercise.

Warm Down or Cool Down

This involves a gradual decrease in the intensity of the exercise session. Following exercise, a large supply of blood remains in the working muscles. If it is not returned promptly o the central circulation, pooling of blood may occur in the muscles

Heart Rate

As you exercise, so the rate at which your heart beat also increases. This is often used as a measure of the required intensity of exercise. You need to exercise hard enough to condition your circulatory system, and increase your pulse rate, but not enough to strain your heart.

Your initial level of fitness is important in developing an exercise program for you. If you are starting off, you can get a good training effect with a heart rate of 110-120 beats per minute(BPM). If you are fitter, you will need a higher threshold of stimulation.

To begin with, you should exercise at a level that elevates your heart rate to about 65 to 70% of your maximum. If you find this is too easy, you may want to increase it, but it is better to lean on the conservative side.

As a rule of thumb, the maximum heart rate is 220 minus your age. As you increase in age, so your heart, like other muscles, loses some of its efficiency. Some of its natural loss is won back as fitness improves.

The following table is a guide to those who are “starting fitness”.

Age	25	30	35	40	45	50	55	60	65
Target heart Rate									
10 Second Count	23	22	22	21	20	19	19	18	18
Beats per Minute	138	132	132	126	120	114	114	108	108

Pulse Count

The pulse count(on your wrist or carotid artery in the neck, taken with two index fingers)is done for ten seconds, taken a few seconds after you stop exercising. This is for two reasons: (a) 10 seconds is long enough for accuracy, (b) the pulse count is to approximate your BPM rate at the time you are exercising. Since heart rate slows as you recover, a longer count isn’t as accurate.

The target is not a magic number, but a general guide. If you’re above average fitness, you may work quite comfortably a little above that suggested for your age group.

The following table is a guide to those who are keeping fit. Here we are working at about 80% of maximum.

Age	25	30	35	40	45	50	55	60	65
Target heart Rate									
10 Second Count	26	26	25	24	23	22	22	21	20
Beats per Minute	156	156	150	144	138	132	132	126	120

Don’t push yourself too hard to reach the figures on this table. It can be very uncomfortable if you overdo it. Let it happen naturally as you work through your program. Remember, the target is a guide, not a rule, a little above or below is just fine.

Two final comments:(1) don’t be concerned with day to day variations in your pulse rate, being under pressure or not enough sleep can affect it;(2) your pulse rate is a guide, don’t become a slave to it.

Endurance Circuit Training
Cardiovascular endurance, muscle, strength, flexibility and coordination are all necessary for maximum fitness. The principle behind circuit training is to give a person all the essentials at one time by going through your exercise program moving as fast as possible between each exercise. This increases the heart rate and sustains it, which improves the fitness level. Do not introduce this circuit training effect until you have reached an advanced program stage.

Body Building
Is often used synonymously with strength training The fundamental principal here is OVERLOAD. Here, the muscle works against greater loads than usual. This can be done by increasing the load you are working against.

Patronization
This is the term used to vary your exercise program for both physiological and psychological benefits. In your overall program, you should vary the workload, frequency and intensity. The body responds better to variety and so do you. In addition, when you feel yourself getting “stale’, bring in periods of lighter exercise to allow the body to recuperate and restore its reserves. You will enjoy your program more and feel better for it.

Muscle Soreness
For the first week or so, this may be the only indication you have that you are on an exercise program. This, of course, does depend on your overall fitness level. A confirmation that you are on the correct program is a very slight soreness in most major muscle groups. This is quite normal and will disappear in a matter of days.
If you experience major discomfort, you may be on a program that is too advanced or you have increased your program too rapidly.
If you experience PAIN during or after exercise, your body is telling you something.
Stop exercising and consult your doctor.

What to Wear
Wear clothing that will not restrict your movement in any way while exercising. Clothes should be light enough to allow the body to cool. Excessive clothing that causes you to perspire more than you normally would while exercising, gives you no advantage. The extra weight you lose is body fluid and will be replaced with the next glass of water you drink. It is advisable to wear a pair of gym or running shoes or “sneakers”.
Breathing during Exercise
Do not hold your breath while exercising. Breathe normally as much as possible. Remember, breathing involves the intake and distribution of oxygen, which feeds the working muscles.

Rest periods
Once you start your exercise program, you should continue through to the end. Do not break off halfway through and then restart at the same place later on without going through the warm-up stage again.

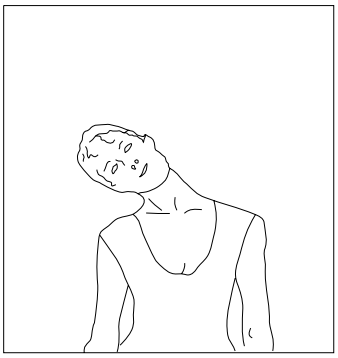
The rest period required between strength training exercises may vary from person to person. This will depend mostly on your level of fitness and the program you have chosen. Rest between exercises by all means, but do not allow this to exceed two minutes. Most people manage with half minute to one minute rest periods

STRETCHING

Stretching should be included in both your warm up and cool down, and should be performed after 3-5 minutes of low intensity aerobic activity or callisthenic type exercise. Movements should be performed slowly and smoothly, with no bouncing or jerking. Move into the stretch until slight tension, not pain, is felt in the muscle and hold for 20-30 seconds. Breathing should be slow, rhythmical and under control, making sure never to hold your breath.

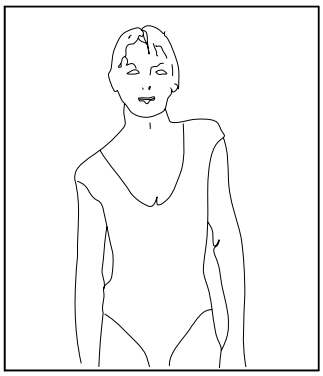
HEAD ROLLS

Rotate your head to the right for one count, feeling the stretch up the left side of your neck. Next rotate your head back for one count, stretching your chin to the ceiling and letting your mouth open. Rotate your head to the left for one count, and finally, drop your head to your chest for one count.



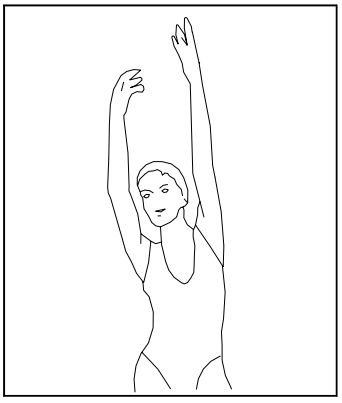
SHOULDER LIFTS

Lift your right shoulder up toward your ear for one count. Then lift your left shoulder up for one count as you lower your right shoulder.



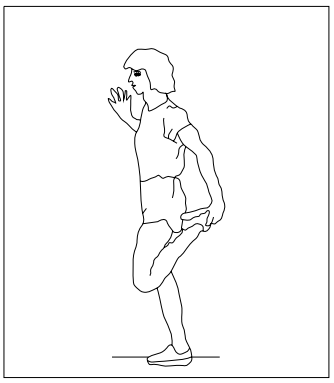
SIDE STRETCHES

Open your arms to the side and continue lifting them until they are over your head. Reach your right arm as far upward toward the ceiling as you can for one count. Feel the stretch up your right side. Repeat this action with your left arm.



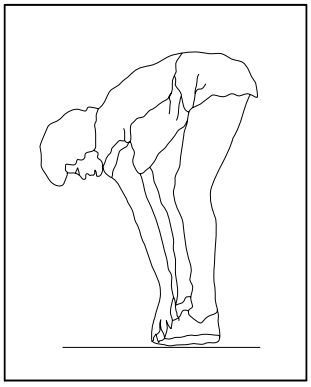
QUADRICEPS STRETCH

With one hand against a wall for balance, reach behind you and pull your right foot up. Bring your heel as close to your buttocks as possible. Hold for 15 counts and repeat with left foot up.

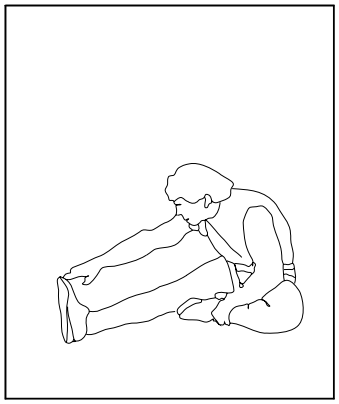


INNER THIGH STRETCH
Sit with the soles of your feet together with your knees pointing outward. Pull your feet as close Into your groin as possible. Gently push your knees towards the floor. Hold for 15 counts.

TOUCHES
Slowly bend forward from your waist, letting your back and shoulders relax as you stretch toward your toes. Reach down as far as you can and hold for 15 counts.



HAMSTRING STRETCHES
Sit with your right leg extended. Rest the sole of your left foot against your right inner thigh. Stretch your toe as far as possible. Hold for 15 counts. Relax and then repeat with left leg extended.



CALF / ACHILLES STRETCH
Lean against a wall with your left leg in front of the right and your arms forward. Keep toward your right leg straight and the left foot on the floor then bend the left leg and lean forward by moving your hips toward the wall. Hold, then repeat on the other side for 15 counts.